

AMENDMENTS TO THE SPECIFICATION

In the Specification:

Please replace paragraph [0070] with the following amended paragraph:

[0070] Particularly, when the grain boundaries exist in active channel regions, the grain boundaries may have a fatal effect on TFT characteristics. This may ~~due to defects resulting limits result from limitations~~ in the process ~~accuracy during formation of forming~~ a polycrystalline silicon thin film.

Please replace paragraph [0076] with the following amended paragraph:

[0076] The shape of the grains of polycrystalline silicon is anisotropic, and the grains of polycrystalline silicon are preferably formed by one of a sequential lateral solidification (SLS) method and a metal induced lateral crystallization (MILC) method. Although grain boundaries of polycrystalline silicon formed by a SLS method include "primary" grain boundaries ordinarily perpendicularly formed to growing direction of grains and "side" grain boundaries of anisotropic grains ordinarily perpendicularly formed to the "primary" grain boundaries, grain boundaries of a type which is not specified hereinafter represent "primary" grain boundaries, since grain boundaries having a primary effect on electrical characteristics of a thin film transistor mean "primary" grain boundaries. Grain boundaries having an incidental effect on electrical characteristics of a thin film transistor mean "side" grain boundaries of anisotropic grains.

Please replace paragraph [0085] with the following amended paragraph:

[0085] However, in this case, distance w_1 between primary grain boundaries in the pixel portion is ~~larger~~ shorter than distance w_2 between primary grain boundaries in the driving circuit portion since uniformity in the pixel portion is secured when the number of primary grain

boundaries meeting a current direction line included in active channel regions of a thin film transistor of the pixel portion 20 is larger than the number of primary grain boundaries meeting a current direction line included in active channel regions of a thin film transistor of the driving circuit portion 10.

Please replace paragraph [0088] with the following amended paragraph:

[0088] Isotropic shaped polycrystalline silicon in this embodiment may be formed by ~~eximer~~ excimer laser annealing.

Please replace paragraph [0110] with the following amended paragraph:

[0110] However, in this case, distance w_1 between primary grain boundaries in the driving thin film transistor may be ~~longer~~ shorter than distance w_2 between primary grain boundaries in the switching thin film transistor since uniformity in the driving thin film transistor may be obtained when the number of primary grain boundaries meeting a current direction line included in active channel regions of the driving thin film transistor is larger than the number of primary grain boundaries meeting a current direction line included in active channel regions of the switching thin film transistor.

Please replace paragraph [0112] with the following amended paragraph:

[0112] Referring to FIG. 14, grains of polycrystalline silicon formed in active channel regions of a switching thin film transistor and a driving thin film transistor are formed in an isotropic shape. More grain boundaries may be ~~included~~ included in the driving thin film transistor than in the switching thin film transistor if the size of grains of polycrystalline silicon formed in the driving thin film transistor illustrated in enlarged view A is larger than the size of grains of polycrystalline silicon formed in the switching thin film transistor illustrated in enlarged view B.

Therefore, more grain boundaries meeting the current direction line may also be included in the driving thin film transistor than in the switching thin film transistor. The number of grain boundaries in the driving thin film transistor may be at least one or more larger than the number of grain boundaries in the switching thin film transistor. The switching thin film transistor and the driving thin film transistor of active channel regions of the thin film transistor have an equal length d. Isotropic shaped polycrystalline silicon in this embodiment may be formed by ~~eximer~~ excimer laser annealing.

Please replace paragraph [0149] with the following amended paragraph:

[0149] FIG. 22 is a graph illustrating change of current mobility according to the number of side grain boundaries of ~~anisotropic~~ anisotropic grains. Current mobility of a PMOS thin film transistor or an NMOS thin film transistor may also be reduced as the number of side grain boundaries of ~~anisotropic~~ anisotropic grains is being increased.

Please replace paragraph [0150] with the following amended paragraph:

[0150] Current mobility characteristics may be improved compared to when the primary grain boundaries are parallel to the direction of current flowing from the source to the drain, since primary grain boundaries may have more effect on the number of grain boundaries capable of functioning as trap for current flow than side grain boundaries of ~~anisotropic~~ anisotropic grains.

Please replace paragraph [0152] with the following amended paragraph:

[0152] Side grain boundaries of ~~anisotropic~~ anisotropic grains may have small variations according to the current movement in accordance with the change in the number of grain

boundaries, although "primary" grain boundaries may have large variations according to current movement in accordance with the change of the number of grain boundaries.

Please replace paragraph [0153] with the following amended paragraph:

[0153] Therefore, this current value difference in the present invention may be accomplished by changing the number of primary grain boundaries and/or the number of side grain boundaries of ~~anisotropie~~ anisotropic grains of polycrystalline silicon included in active channel regions of the second thin film transistor of FIG. 19, e.g., a driving thin film transistor for supplying current to emission device. A current value supplied to the emission device of each sub-pixel, for example, an organic electroluminescent device, may be changed by changing the number of primary grain boundaries included in active channel regions of a first thin film transistor of red, green and blue sub-pixels.

Please replace paragraph [0162] with the following amended paragraph:

[0162] An amorphous silicon thin film may be deposited on the upper part of the buffer layer 302 to a thickness of approximately 500 Å. The amorphous silicon thin film can be crystallized into polycrystalline silicon thin film by various methods, wherein the crystallized polycrystalline silicon thin film comprises primary grain boundaries longitudinally extended, and side grain boundaries of ~~anisotropie~~ anisotropic grains perpendicular to the primary grain boundaries as shown in FIG. 20. Although SLS method is used to obtain the foregoing crystal structure in an embodiment of the present invention, any crystallization method capable of obtaining this crystal structure may also be used.

Please replace paragraph [0164] with the following amended paragraph:

[0164] The grain boundaries comprise both primary grain boundaries and side grain boundaries of ~~anisotropic~~ anisotropic grains.

Please replace paragraph [0166] with the following amended paragraph:

[0166] The active channel regions of the second thin film transistor may be patterned so that active channel regions of the second thin film transistor for each sub-pixel are perpendicular to the direction of the grain boundaries, as shown in FIG. 19, after forming the polycrystalline silicon thin film, wherein the grain boundaries are primary grain boundaries and/or side grain boundaries of ~~anisotropic~~ anisotropic grains, and active channel regions of the first thin film transistor are also patterned at the same time.